

2



Outline



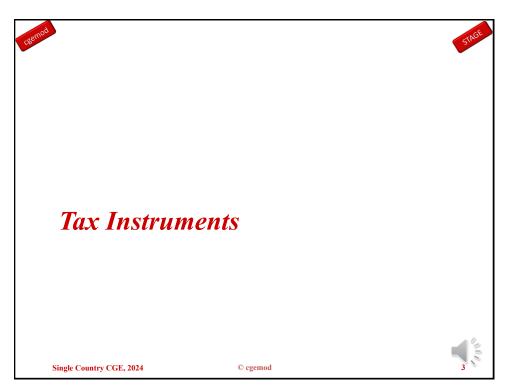
- Introduction
- Policy instruments
 - Critical in price driven models price 'wedges'
 - Greater 'sophistication' in tax focused CGE models
- Tax Instruments
- Calibration of Tax Rates
- Tax Revenue Variables



Single Country CGE, 2024

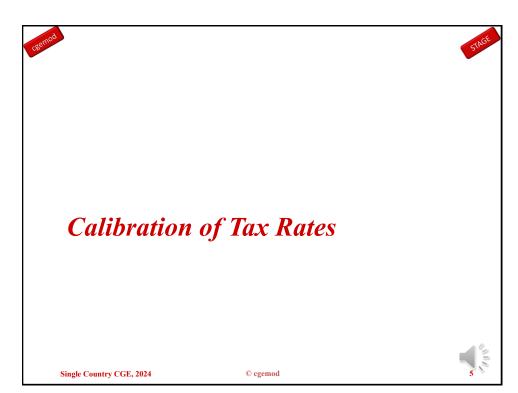
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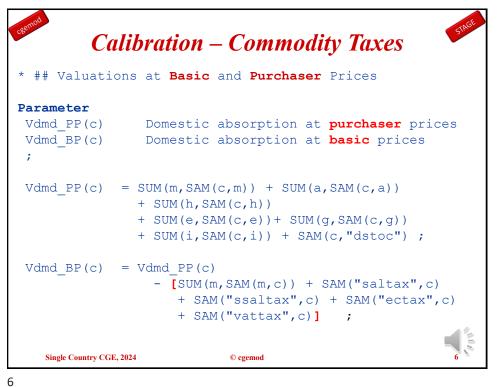




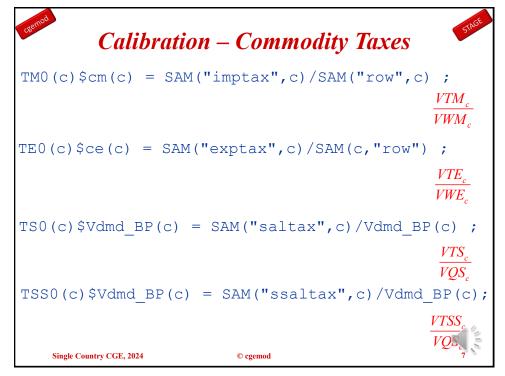
Tax Instruments 55,06E			
Instrument	Name	Base	Behaviour
Import duties	TM_c	$PWM_c * QM_c$	ad valorem
Export taxes	TE_c	$PWE_c * QE_c$	ad valorem
Sales taxes	TS_c	$PQS_c * QQ_c$	ad valorem
Sales taxes2	TSS_c	$PQS_c * QQ_c$	ad valorem
Excise taxes	TEX_c	QQ_c	specific
Value added tax (VAT)	TV_c	$PQD_c * QCD_c$	ad valorem
Production taxes	TX_a	$PX_a * QX_a$	ad valorem
Factor use taxes	$TF_{f,a}$	$WFA_{f,a}*FD_{f,a}$	ad valorem
Factor income taxes	TYF_f	$Y\!F_f$	ad valorem
Household income taxes	TYH_h	YH_h	ad valorem
Enterprise income taxes	TYE_e	$Y\!E_e$	ad valorem
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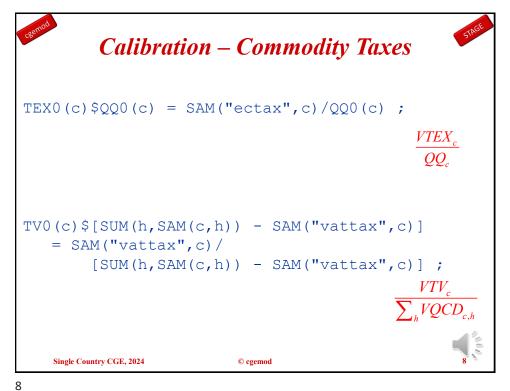














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Calibration — Activity Taxes

TX0 (a) $SAM("total", a)

= SAM("indtax", a) /SAM("total", a);

VTX_a
VX_a

TF0 (f, a) $SAM(f, a)

= SUM tff$map_f_tff(f, tff), SAM(tff, a)]

/SAM(f, a);

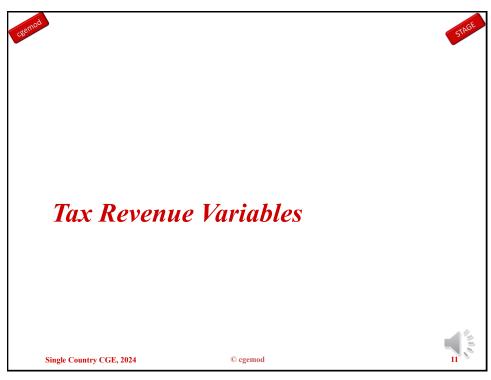
VTF_f,a
VFD_f,a

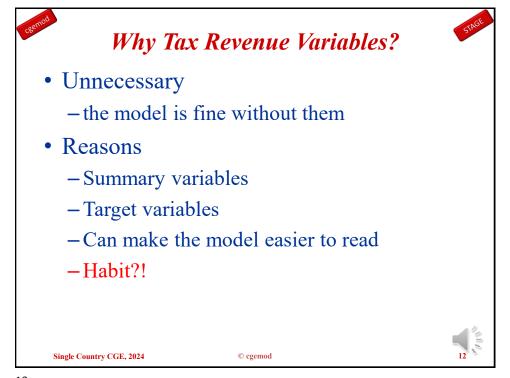
Set

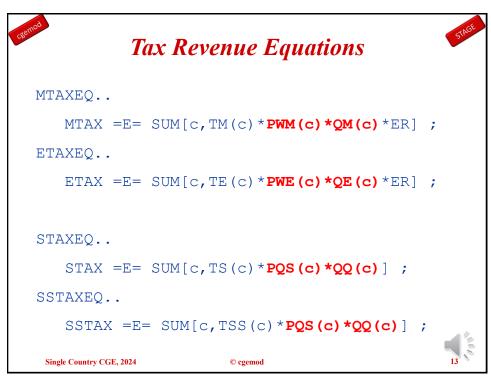
map_f_tff(f, tff) Factor taxes to factors /

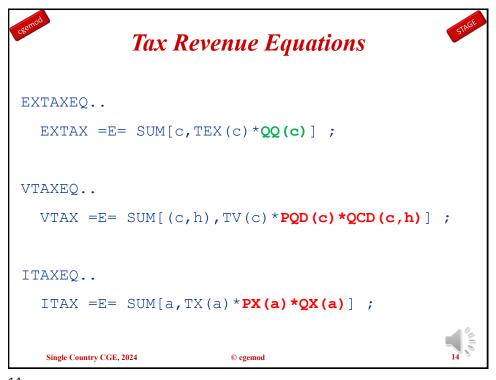
#f:#tff
/;
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Tax Revenue Equations

FTAXEQ..

FTAX =E= SUM[(f,a),TF(f,a)

* WF(f) * WFDIST(f,a) * FD(f,a)];

FYTAXEQ..

FYTAX =E= SUM[f,TYF(f)*(YF(f)*(1-deprec(f)))];

DTAXEQ..

DTAX =E= SUM[h,TYH(h)*YH(h)]

+ SUM[e,TYE(e)*YE(e)];

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